**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| In Re Application of: Jeffrey A. Tilton et al. | Attorney Docket No.: 25363A |
| Serial No.: 10/789,143 | Group Art Unit: 1771 |
| Filed: February 27, 2004 | Examiner: Piziali, Andrew T. |

For: LAYERED POLYMER FIBER INSULATION AND METHOD OF MAKING THEREOF

**PRE-APPEAL REQUEST FOR REVIEW**

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a Pre-Appeal Brief Request for Review of the final rejections made in the final Office Action dated April 21, 2008, submitted concurrently with a Notice of Appeal. Upon carefully considering the following comments, the panel will find the following errors in the claim rejections.

In rejecting claims 10 and 20 under Section 112, it is contended that "[i]t is not clear what heat resistance is encompassed by a 'high heat resistance.'" According to the Manual of Patent Examining Procedure, "[a]cceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification." MPEP § 2173.05(b). Thus, it matters not if the phrase read in a vacuum might have a different meaning to different individuals based on different interpretations. Instead, it matters whether a skilled artisan would fail to understand what is claimed upon reviewing Applicant's specification, which has not been established.

In maintaining the rejection, the Examiner contends that Applicant failed to provide a definition or any examples of what "high heat resistance" means. Respectfully, it is unnecessary to provide a definition in order for a claim term to be definite, since the meaning that would be understood based on the specification is controlling. Moreover, the Examiner's contention that the term "high heat resistance" is "subjective" is irrelevant. That an interpretation of claim terminology involves the subjective understanding of a skilled artisan based on the teachings of the accompanying specification does not render it indefinite. Accordingly, the rejections of claims 10 and 20 are based on errors of law.

Turning to claim 25, the Examiner first contends that it fails to comply with the written description requirement because "the specification does not teach or suggest the claimed second and third 'discrete' layers." Respectfully, this contention is factually erroneous, since the specification describes "individual" layers 2, 4, 6 of wet processed mat. Hence, a written description of the invention of claim 25, which comprises "discrete" layers "composed of separate and distinct parts" and "[h]aving an individually distinct identity" that are directly bonded together, is clearly provided.

Claim 25 is also rejected under Section 112, second paragraph, because "it is not clear how the layers can be 'discrete' (unconnected) while also being bonded together." Figure 1 shows the claimed layers "composed of separate and distinct parts," with an individual identity (that is, discrete) while bonded together. There is simply no incongruity.

Turning to the rejection of claim 25 as anticipated, the Examiner contends that either Oleszczuk or Lickfield disclose the exact same invention claimed, but **never** establishes that either reference discloses the three claimed layers.

Rather, the Examiner arbitrarily and capriciously speculates that a single mass of fibers can be considered as a "multi-layered article" (despite taking the opposite position in the Office Action of July 11, 2005, p. 3, para. 5, lines 4-5, "**neither Oleszczuk nor Lickfield specifically mentions a third layer of wet processed mat**") (emphasis added).

Even if Oleszczuk or Lickfield disclose a single layer including bicomponent fibers, it is not established that bicomponent fibers bond the fibers within individual layers of the mat. Any assertion that is it "possible" that such occurs in the products of these references is mere speculation, and cannot support a finding of anticipation. Moreover, these references do not disclose the "discrete," but bonded together layers, as claimed, so the anticipation rejection is erroneous.

In rejecting claims 1-5, 11, 12, and 25 as anticipated, it is admitted that Welchel's teaching is limited to air-laid mats, but the Examiner nonetheless contends that the mat of Welchel "is identical to or only slightly different from the claimed article (wet-laid)." In response a challenge to this assertion as being unsupported by any evidence in the record, the Examiner states that such is "common sense," and cites definitions of the terms "air-laid" and "wet-laid."

A finding of anticipation is proper "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" MPEP § 2131.01 (Emphasis Added). "Normally, only one reference should be used" in making an anticipation rejection. *Id.* However, a second reference can be cited to: (1) prove the primary reference contains an enabled disclosure; (2) explain the meaning of a term used in the primary reference; or (3) show that a characteristic not disclosed in the reference is inherent. *Id.*

The cited definition of "air-laid" does not prove that Welchel contains an enabled disclosure, or show that a characteristic not disclosed in that reference is inherent. Thus, to be properly relied upon, it must be proffered to "explain the meaning of a term used in" Welchel. However, the Examiner does use this definition to "explain the meaning of" air-laid, but rather to assert that an air laid mat is allegedly "identical to or only slightly different from the claimed article (wet-laid)." Thus, reliance on this definition as a "secondary reference" to support an anticipation rejection is legal error.

Regardless, the cited definition does not support the proposition advanced, but instead favors the Applicant's interpretation. Nowhere do the definitions cited establish that an air laid mat is **identical** to or "only slightly different from" a wet processed mat. Rather, the definitions indeed establish a difference in the resulting product (namely, wet processing "provides an insulating layer with a more consistent weight per unit area" and also "provides more intimate mixing of the fiber blends and more random fiber orientation . . . ."; see Applicant's specification, p. 7, second full paragraph). The definitions do not in any way compare the resulting mats, or provide any insight into their relative properties. Hence, this submission does not and cannot qualify as the requisite "substantial evidence" to support the Examiner's finding that Welchel discloses the "exact same invention" claimed.

In the final Action, the Examiner maintains the position that "the patentability of a product does not depend on its method of production." However, Applicant again emphasizes that a "wet processed mat" refers to an article (as the Examiner acknowledges in the rejection), not method or process steps. Disregarding precedential decisions, the Examiner cites *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983) to shift the burden of proving patentability because the present claims are "product-by-process" claims. However, the present claims recite a liner/insulator having multiple layers of wet processed mat directly bonded together. Thus, unlike in *Marosi*, the claims are not "product-by-process" claims at all, but rather recite products (claims 1-12 and 24-25) or methods of manufacture (claims 13-23). The rejection is in error.

Error also exists in the final rejections of claims 1-5, 9-15, 19-22, and 24-25 based on the combination of Oleszczuk and Lickfield as primary references, in further view of Welchel. The Examiner previously admitted that "layers (14) and (16) [Oleszczuk et al. and Lickfield et al.] are not directly bonded," but nonetheless concludes that one of these layers "would be directly bonded to another layer of wet processed mat." This is because "Oleszczuk . . . and Lickfield . . . each disclose that additional 'supporting' (wet processed bicomponent staple fiber mat) layers may be added to the article . . ." (Office Action dated 11/8/07, p. 17, last sentence).

Again, absolutely no evidence in the record supports this conclusion, and the Examiner points to nothing in the final Office Action to support the contention made. Olezczuk and Lickfield do **not** in any of the passages cited disclose that an additional "wet processed mat" layer may be added to the article, let alone **directly bonded to another wet processed mat layer** as required by the claims at issue. While these references include an omnibus statement regarding the possible addition of unspecified layers in an unspecified manner, this hardly qualifies as the requisite substantial evidence necessary to support a proper rejection. Stated another way, no reasonable mind might accept as adequate the teachings of Olezczuk and Lickfield as to the addition of various additional layers as supporting the conclusion advanced by the Examiner that it would as a result of the cited teachings be obvious to directly bond a wet processed mat of a different fiber formulation to either of the layers 14, 16 disclosed in these references.

Likewise, the requisite substantial evidence does not support the conclusion that a skilled artisan would have found it obvious to "directly bond an additional wet processed bicomponent staple fiber mat supporting layer, with a different fiber formulation . . . because the additional wet processed bicomponent staple fiber mat supporting layer would allow the surface to be more aesthetically pleasing to the touch and more comfortable to the user" (Office Action of 11/8/07, p. 18). Nothing in the record supports the conclusion that adding a wet processed mat layer having a different fiber formulation would produce the stated result. As implicitly admitted by the Examiner, Welchel does not mention any wet processed mat layer directly bonded to another wet processed mat layer of the type claimed having a different fiber formulation, so it cannot support the conclusion reached. Moreover, the Examiner expressly admits that Olezczuk and Lickfield "do not appear to specifically mention at least one adjacent additional layer of different fiber formulation" (*Id.* at p. 5). Even if Welchel teaches that a different fiber diameter or denier may create a surface more "aesthetically more pleasing to the touch," this does not provide a reason for a skilled artisan to directly bond two wet processed mats having different fiber formulations as the claims require.

Turning to method claim 13 alone, it specifically requires the step of "applying sufficient heat and pressure to said first and second layers of mat to bond said first layer and said second layer directly together and form said liner/insulator." As admitted by the Examiner, the primary references do not in any way teach directly bonding layers of wet processed mat, as claimed. Hence, they cannot possibly teach the step of "applying heat and pressure" to such layers to bond them.

In response, the Examiner disagrees, stating that "Oleszczuk and Lickfield each disclosed that the layers may be thermally bonded." Respectfully, these references fail to mention a liner/insulator including first and second layers of wet processed mat directly bonded together, wherein the first and second layers have different fiber formulations. Thus, even if the teachings of these references are combined with Welchel, which fails to disclose the claimed wet processed mat with layers having different fiber formulations, they would in no way disclose all limitations of process claim 13.

With regard to claims 6-8 and 16-18, Oleszczuk and Lickfield fail to mention a liner/insulator including first and second layers of wet processed mat directly bonded together, wherein the first and second layers have different fiber formulations. Welchel, as described above, does not supply this missing teaching, either, and Insley does nothing to address this shortcoming of the other references. Also, the Examiner's stated reason for making the combination ("successfully practicing the invention") does not qualify as objective evidence of the requisite reason for arriving at the claimed inventions. Accordingly, the rejections of claims 6-8 and 16-18 lack proper legal support.

Claim 23 is finally rejected as obvious based on the teachings of **five** different references. The Oleszczuk, Lickfield, and Welchel references fail to teach or suggest a liner/insulator including first and second layers of wet processed mat directly bonded together where those first and second layers have different fiber formulations. Bansal and Maloney do nothing to address this shortcoming of the other references. Accordingly, legal error is present.

Claims 1-5, 11-15, 21-22, and 25 are further rejected as obvious in light of Welchel "in view of anyone of" Holm, Cederblad, or D'Acchioli. While it is admitted that the primary Welchel reference does not disclose the claimed wet processed layers of mat directly bonded together, the secondary references purportedly disclose "that it is known in the art to form mats by a wet-laid or dry-laid process." Thus, the Examiner posits it obvious to make the claimed mats "from any suitable nonwoven material, such as dry laid or wet laid, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics" (final Office Action, p. 11).

Even if the dated holdings relied upon by the Examiner control, nothing in the record (including the cited definitions) establishes that air laid and wet processed mats are "known equivalent structures." Aside from the remarkable lack of any evidence supporting the Examiner's position, Applicant specifically claims multiple layers of wet processed mat directly bonded together, and the primary reference relied upon (Welchel) teaches an air-laid mat. Holm, Cederblad, or D'Acchioli do not even remotely disclose or teach multiple layers of wet processed mat directly bonded together made of the claimed thermoplastic polymer staple fibers and thermoplastic bicomponent fibers, or that such fibers when wet processed would be suitable for forming a multi-layered insulator. Indeed, an expressly stated goal of the Holm patent is to produce an article of natural fibers (see col. 1, lines 66-67), so it actually teaches away from the arrangement of Welchel. For these reasons, the Examiner failed to establish the "known equivalence" of wet processed and air laid mats, or set forth a *prima facie* case of obviousness.

The arguments that Holm "teaches away" from the claimed invention are challenged because "the rejection does not suggest using the fiber material disclosed by Holm" (Office Action, p. 24). Regardless, a reference must be considered "as a whole," including any portion that would lead a skilled artisan away from the claimed invention. MPEP § 2141.02 (prior art must be considered in its entirety, including disclosures that teach away from the claims). The Examiner cannot disregard Holm's disparaging of thermoplastic fibers, which would lead a skilled artisan astray, in making the rejection.

A secondary reason that a *prima facie* case of obviousness is lacking is the complete and total failure of the Examiner to identify any evidence of a **reason** for using the product of Holm, Cederblad, or D'Acchioli in the arrangement of Welchel. Merely incanting a passage from "KSR v. Teleflex" cannot sustain the rejection, where a reason for combining the teachings of the references is lacking (and in fact is contraindicated). Indeed, the *KSR* decision actually

supports the Applicant, since it recognizes that the Examiner's effort to "merely demonstrat[e] that each of its elements was, independently, known in the prior art" is insufficient to establish obviousness.

Responsive to the obviousness rejection of claim 25, Applicant stated in the prior response that Welchel does not disclose any third layer of bicomponent fibers, period, and indeed specifically teaches that one of the layers must consist solely of cellulosic fibers in order to be absorbent (see col. 4, lines 36-39). The Examiner disagrees, citing to two passages and Figure 2 of Welchel. The first cited passage at col. 5, lines 35-65, fails to describe any third layer of bicomponent fibers, nor does it even state that the top sheets 102, 105 comprise **both** thermoplastic polymer staple fibers and thermoplastic bicomponent fibers. The same is true of the passage at column 7, lines 4-21 (which actually prefaces a statement that teaches away from wet processing using bicomponent fibers at col. 7, lines 36-40: "The best method . . . when using bicomponent staple fibers is to use a through-air bonder such as is described above with respect to the bicomponent spunbond web formation process."). Figure 2 does nothing to supplement this teaching, either.

With respect to claim 26, it reads on a liner/insulator comprising first and second **individual layers** of wet processed mats comprising thermoplastic polymer staple fibers and thermoplastic bicomponent fibers of different fiber formulations with contacting first and second faces. The Examiner finally rejects this claim as "anticipated" by Welchel, but as noted above it does not disclose the claimed wet processed layers with contacting faces. Even if true, the contention that an air laid mat is "only slightly different" from the claimed wet processed mat confirms the anticipation rejection is improper, because Welchel thus does not *per se* disclose the **exact same invention being claimed**.

Despite rejecting method claim 27 as "obvious," the Examiner nowhere establishes any disclosure in these references of the steps of: (1) wet processing thermoplastic polymer staple fibers and thermoplastic bicomponent fibers to form a first layer of wet processed mat having a first face; (2) wet processing thermoplastic polymer staple fibers and thermoplastic bicomponent fibers to form a second layer of wet processed mat having a different fiber formulation than said first layer, said second layer having a second face; and (3) applying sufficient heat and pressure to the first and second layers of mat to bond said first layer and said second layer directly together and form the liner/insulator. Since all claim limitations are thus not taught or suggested by the cited prior art, a *prima facie* case of obviousness is lacking.

In summary, it is believed that all rejections are based on errors of fact or law, and that all pending claims meet the requirements of the Patent Act. Upon careful review and consideration, it is believed the panel will agree with this proposition. Any fees required in connection with this response may be debited from Deposit Account 50-0568.

Respectfully submitted,

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Date: 8/4/08

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